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***SCAFFOLD-ORGANIZED CLUSTERS AND ELECTRONIC
DEVICES MADE USING SUCH CLUSTERS***

ABSTRACT OF THE DISCLOSURE

- 5 A method for forming arrays of metal, alloy, semiconductor or magnetic clusters is described. The method comprises placing a scaffold on a substrate, the scaffold comprising, for example, polynucleotides and/or polypeptides, and coupling the clusters to the scaffold. Methods of producing arrays in predetermined patterns and electronic devices that incorporate such patterned arrays are also described.